In the Claims:

1. (Currently Amended) A conveyor screw having a plurality of screw flights, each of which extends ~~extending~~ in a helical path about a longitudinal axis, wherein at least two of the screw flights extend from an inlet end part of the conveyor screw, wherein [[the]] outer edges of the at least two of the screw flights extend [[in]] a different radial distance from the longitudinal axis, and wherein the radially shorter of the screw flights extends in [[the]] a range of 0.85 to 0.98 times the radius of the radially longer of the screw flights.

2. (Currently Amended) A conveyor screw according to claim 1, wherein ~~at least one screw flight extending at a lower radial distance from the longitudinal axis,~~ the radially shorter of the screw flights extends from ~~the inlet end part from~~ substantially the same longitudinal position of the inlet end part of the conveyor screw as the radially longer of the screw flights ~~screw flight extending at a higher radial distance from the longitudinal axis~~.

3. (Currently Amended) A conveyor screw according to claim 1, wherein ~~one or more screw flights extending at a lower radial distance from the longitudinal axis,~~ the radially shorter of the screw flights extends from the inlet end part and along the conveyor screw for between 5% and 65%[[,]] ~~preferably between 7% and 50%~~ of the total length thereof.

4. (Currently Amended) A conveyor screw according to claim 1, wherein at least two of the radially shorter of the screw flights ~~extending at a lower radial distance from the longitudinal axis,~~ extend from the inlet end part and for different longitudinal distances from the inlet end part.

5. (Currently Amended) A conveyor screw according to claim 4, wherein the difference in the ~~extension~~ longitudinal distances from the inlet end part of said screw flights amounts to from 8% to 50%[[,]] ~~preferably from 12% to 40%~~ of the total length of the conveyor screw.

6. (Currently Amended) A conveyor screw according to claim 1, wherein the pitch of the screw flights at the inlet end of the conveyor screw is 0.9 to 1.4~~, preferably 1.1-1.3~~.

7. (Currently Amended) A conveyor screw according to claim 1, wherein the pitch of the screw flights is reduced along the longitudinal direction of the conveyor screw to 0.7 to 1[[,]] ~~preferably 0.8 to 0.9~~ at an outlet end of the conveyor screw.

8. (Previously Presented) A conveyor screw according to claim 1, wherein everywhere along the longitudinal direction of the conveyor screw, at least one screw flight extends to a given highest radius, so that the complete inner wall of a cylindrical cavity in which the conveyor screw is placed, is scraped by rotation of the conveyor screw.

9. (Currently Amended) A conveyor screw according to claim 1, wherein the screw flights extending [[to]] the highest radial distance from the longitudinal axis progress discontinuously in the longitudinal direction, so that a peripherally extending opening exists between these screw flights at least at one position along the longitudinal direction.

10. (Currently Amended) A conveyor screw according to claim 9, wherein said opening or openings extend over 120 to 240° of the periphery. ~~, preferably over 150 to 210° of the periphery.~~

11. (Currently Amended) A conveyor comprising a stationary part having an inner surface, which closely encloses a conveyor screw ~~according to claim 1~~ having a plurality of screw flights, each of which extends in a helical path about a longitudinal axis, wherein at least two of the screw flights extend from an inlet end part of the conveyor screw, wherein [[the]] outer edges of the at least two of the screw flights extend a different radial distance from the longitudinal axis, and wherein the radially shorter of the screw flights extends in a range of 0.85 to 0.98 times the radius of the longer screw flight, drive means for ~~driving a rotation of~~ rotating the conveyor screw about the longitudinal axis thereof, and inlet and

outlet to direct a mass to the inlet end of the conveyor screw and from its outlet end, respectively.

12. (Currently Amended) An apparatus for making ice cream, comprising a through-flow freezer having an inner surface, which closely encloses a conveyor screw, having a plurality of screw flights, each of which extends in a helical path about a longitudinal axis, wherein at least two of the screw flights extend from an inlet end part of the conveyor screw, wherein outer edges of the at least two of the screw flights extend a different radial distance from the longitudinal axis, and wherein a radially shorter of the screw flights extends in a range of 0.85 to 0.98 times the radius of the radially longer screw flight, ~~according to claim 1,~~ drive means for ~~driving a rotation of~~ rotating the conveyor screw about the longitudinal axis thereof, cooling means for cooling the inner surface, [[and]] an inlet ~~and outlet to direct~~ for directing an ice cream mass to the inlet end part of the conveyor screw and an and outlet for receiving the ice cream mass from [[its]] an outlet end of the conveyor screw, ~~respectively~~ and wherein the cooling means are adapted to cool down a through-flowing ice cream mass, which enters at a temperature of 4° C to 25° C, to a temperature of 0° C.

13. (Canceled).

14. (Currently Amended) An apparatus according to claim 12, wherein the drive means is adapted to drive the conveyor screw with from 10 to 50 rotations per minute, preferably with from 20 to 35 rotations per minute.

15. (Currently Amended) Method of making an ice cream mass, wherein, after an ice cream mass is fed into the inlet of an apparatus comprising a through-flow freezer having an inner surface, which closely encloses a conveyor screw, having a plurality of screw flights, each of which extends in a helical path about a longitudinal axis, wherein at least two of the screw flights extend from an inlet end part of the conveyor screw, wherein outer edges of the at least two of the screw flights extend a different radial distance from the longitudinal axis, and wherein a radially shorter of the screw flights extends in a range of 0.85 to 0.98 times the

radius of the radially longer screw flight, drive means for rotating the conveyor screw about the longitudinal axis thereof, cooling means for cooling the inner surface, an inlet for directing an ice cream mass to the inlet end part of the conveyor screw and an and outlet for receiving the ice cream mass from an outlet end of the conveyor screw, the ice cream mass is cooled down by said cooling means from an entering temperature of 4° C to 25° C to a temperature below 0°C~~, such as from -1°C to -10°C, where after it is fed into the inlet of an apparatus according to claim 12.~~

16. (New) An apparatus according to claim 12, wherein the radially shorter of the screw flights extends from the inlet end part from substantially the same longitudinal position of the conveyor screw as the radially longer screw flight.

17. (New) An apparatus according to claim 12, wherein the radially shorter of the screw flights extends from the inlet end part and along the conveyor screw for between 5% and 65% of the total length thereof.

18. (New) An apparatus according to claim 12, wherein at least two of the radially shorter of the screw flights extend from the inlet end part and for different longitudinal distances from the inlet end part.

19. (New) An apparatus according to claim 18, wherein the difference in the longitudinal distances from the inlet end part of said screw flights amounts to from 8% to 50% of the total length of the conveyor screw.

20. (New) An apparatus according to claim 12, wherein the pitch of the screw flights at the inlet end of the conveyor screw is 0.9 to 1.4.

21. (New) An apparatus according to claim 12, wherein the pitch of the screw flights is reduced along the longitudinal direction of the conveyor screw to 0.7 to 1 at an outlet end of the conveyor screw.

22. (New) An apparatus according to claim 12, wherein everywhere along the longitudinal direction of the conveyor screw, at least one screw flight extends to a given highest radius, so that the complete inner wall of a cylindrical cavity in which the conveyor screw is placed, is scraped by rotation of the conveyor screw.

23. (New) An apparatus according to claim 1, wherein the screw flights extending the highest radial distance from the longitudinal axis progress discontinuously in the longitudinal direction, so that a peripherally extending opening exists between these screw flights at least at one position along the longitudinal direction.

24. (New) An apparatus according to claim 23, wherein said opening or openings extend over 120 to 240° of the periphery.